

Application No.: 10/626225

Docket No.: TOW-034

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A fuel cell stack for use in a vehicle, said fuel cell stack formed by stacking a plurality of electrolyte electrode assemblies and separators alternately in a stacking direction, each of said electrolyte electrode assemblies including a pair of electrodes and an electrolyte interposed between said electrodes,

wherein said electrodes have a substantially square shape having a side length in a range of 140 mm to 200 mm, and said separators have a substantially square shape having a side length in a range of 200 mm to 300 mm,

said separators have a reactant gas flow passage on their surfaces facing said electrodes for supplying a reactant gas along said electrodes, and a coolant flow passage formed between said separators for supplying a coolant while a direction in which said reactant gas flows crosses a direction in which said coolant flows.

2. (Original) A fuel cell stack according to claim 1, wherein a reactant gas supply passage and a reactant gas discharge passage extend through two parallel side portions of said separators in said stacking direction, and a coolant supply passage and a coolant discharge passage extend through other two parallel side portions of said separators in said stacking direction.

3. (Original) A fuel cell stack according to claim 2, wherein centers of said electrodes are substantially in alignment with centers of said separators.

4. (Original) A fuel cell stack according to claim 3, wherein said reactant gas supply passage and said reactant gas discharge passage are formed symmetrically on a surface of said separator.

5. (Original) A fuel cell stack according to claim 2, wherein a straight reactant gas flow

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passage connecting said reactant gas supply passage and said reactant gas discharge passage is formed on a surface of said separator for supplying a reactant gas to said electrode.

6. (Currently Amended) A method of assembling fuel cell stack for use in a vehicle, said fuel cell stack formed by stacking a plurality of electrolyte electrode assemblies and separators alternately in a stacking direction, each of said electrolyte electrode assemblies including a pair of electrodes and a electrolyte interposed between said electrodes, said method comprising the step of:

said fuel cell stack being used for selectively forming a first assembly, a second assembly, a third assembly, and a fourth assembly depending on conditions for installing said fuel cell stack in said vehicle, wherein

said first assembly is formed by juxtaposing two fuel cell stacks adjacent to each other such that said stacking direction is oriented substantially vertically;

said second assembly is formed by arranging four fuel cell stacks in a square shape in a plan view such that said stacking direction is oriented substantially vertically;

said third assembly is formed by juxtaposing two fuel cell stacks adjacent to each other such that said stacking direction is oriented substantially horizontally; and

said fourth assembly is formed by arranging four fuel cell stacks in a square shape in a front view such that said stacking direction is oriented substantially horizontally.

7. (Currently Amended) A method of assembling a fuel cell stack according to claim 6, wherein said electrodes have a substantially square shape having a side length in a range of 140 mm to 200 mm, and said separators have a substantially square shape having a side length in a range of 200 mm to 300 mm.